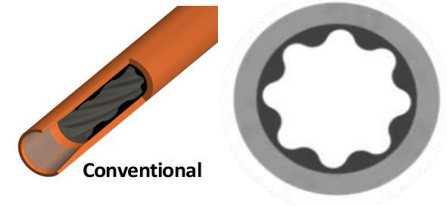


# Power Sections

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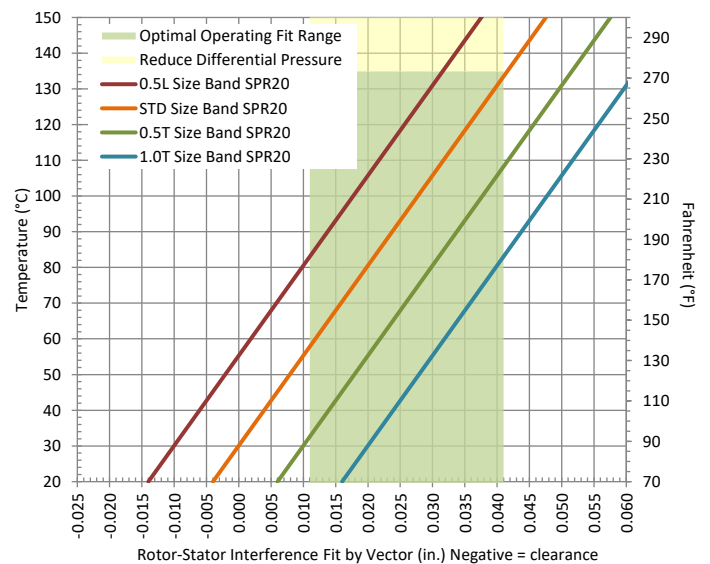
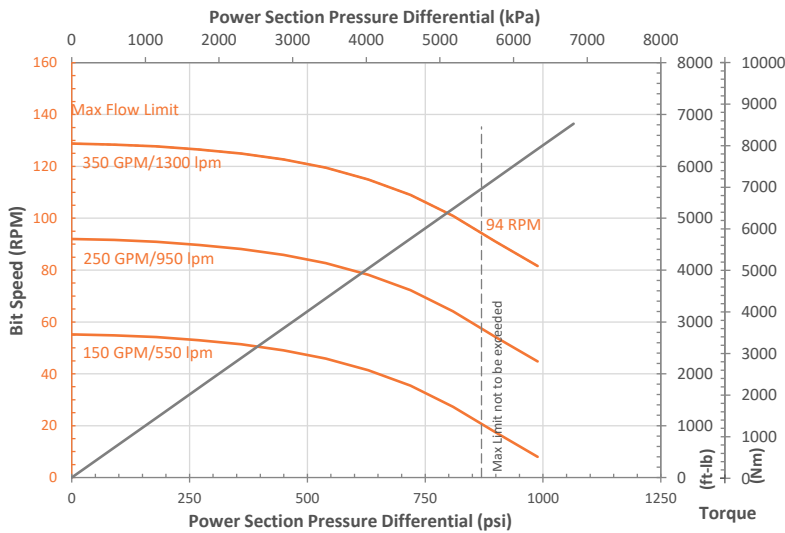
Stator Specifications		
Overall Length in. [mm]	235.0	[5969]
Tube O.D. in. [mm]	5.00	[127]
Tube I.D. (Terminal) in. [mm]	4.00	[102]
Rubber Cutback Top in. [mm]	8.0	[203.2]
Rubber Cutback Btm in. [mm]	8.0	[203.2]
Weight lb [kg]	520	[235]
Tube Material	4140-4145	
To be threaded and ID Banded by customer		

Rotor Specifications		
Overall Length in. [mm]	214.8	[5455]
Contour Length in. [mm]	208.3	[5290]
Major Diameter in. [mm]	3.122	[79.3]
Eccentricity in. [mm]	0.177	[4.5]
Head Diameter in. [mm]	3.250	[82.6]
Gunbored Weight lb [kg]	325	[147]
Solid Weight lb [kg]	372	[169]
Material Options	17-4 PH 140ksi Min Yield 17-4 PH 110ksi Min Yield	
Coating Options	Chrome or Carbide	
To be threaded by customer		

Performance Specifications		
Flow Range GPM [lpm]	150 - 350 [570 - 1320]	
Speed Range RPM	55 - 130	
Torque Slope ft-lb/psi [Nm/kPa]	6.901	[1.357]
Rotation rev/Gal [rev/lit]	0.368	[0.097]
Stall Torque ft-lb [Nm]	9,000	[12,200]
Operating Parameters		
Max Diff Pressure psi [kPa]	850	[6,000]
Torque ft-lbs [Nm]	6,000	[8,100]
Flow Rate GPM [lpm]	350	[1,300]
Full Load RPM	94 at 350 GPM	

Minor Diameter Fit Details at 20°C [68°F]					
SPR-20					
Size Band	Vector Fit (in.) (see note 1)	Vector Measurement (in.)	Recommended Min Operating Temperature	Recommended Optimal Operating Temperature (see note 2)	Recommended Max Operating Temperature (see note 2)
1.0T	0.016	2.753	68°F [20°C]	110°F [45°C]	180°F [80°C]
0.5T	0.006	2.763	90°F [30°C]	160°F [70°C]	225°F [110°C]
STD	-0.004	2.773	135°F [55°C]	205°F [95°C]	270°F [135°C]
0.5L	-0.014	2.783	180°F [85°C]	250°F [120°C]	320°F [160°C]
1.0L	-	-	-	-	-
<b>Minor Shrinkage (in/°F) [in/°C]</b>					<b>0.000213 [0.000384]</b>

- Notes:
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
  - Reduce differential pressure by 20% for temperatures above 275°F (135°C) and by 40% for temperatures above 320°F (160°C)
  - Tolerances in the above table are +/- 0.015 unless otherwise explicitly agreed upon with Spira Systems.
  - Custom targets can be requested by providing a single number. A +/-0.010 tolerance will be applied. Specify pass/fail by vector or laser on your purchase order.



Performance curves are for reference only. Actual power section performance may vary depending on operating conditions (e.g. chosen rotor/stator interference fit, possible rubber swelling by drilling fluid, rotor and stator wear, actual downhole temperature, actual stator temperature, physical and chemical properties of the drilling fluid and other factors encountered downhole). The torque may exceed that specified for the connected components. Operating above the recommended limits may result in damage to the power section and connected components which the operator may be liable for. Data subject to change without notice. Visit [www.spirasystems.com](http://www.spirasystems.com) for most up to date information.